

## *The Plastics in your Products*

We do our part to reduce, reuse, and recycle the plastic products we use day to day, but what about the plastic products that go undetected? Many of us may not realize that plastics are present in more than just packaging and water bottles. Microplastics, small beads of plastic that are similar in size to a grain of sand, can be found in a number of our household products.

### ***Microplastics are macro-pollutants***

The presence of microplastics in our lakes and oceans is beginning to raise many environmental and health concerns. Microplastics are commonly used as exfoliants and can be found in personal care products, such as scrubs, shampoos, soaps, toothpaste, lip glosses, deodorants, and sunblock. An estimated 356,000 microbeads of plastic reside in one 4.2 ounce tube of facial cleanser. American consumers purchase products that contain more than 573,000 pounds of microbeads every year. These microplastics are designed to be small enough in size to be easily washed down the sink. Microbeads, which are approximately one-third of a millimeter in diameter, are able to pass through septic systems and water treatment facilities and enter directly into the aquatic environment.



Figure 1. Fragmented plastics and microplastic that have washed on shore.

Microplastics that make their way into our rivers, lakes, and oceans pose a health risk to organisms in our food web. The plastics break down slowly and are susceptible to absorbing industrial pollutants, such as Polychlorinated biphenyls (PCBs) and dioxins. Because microbeads are similar in shape and size to fish eggs, fish and other wildlife confuse them as a food source and ingest them.

### ***How to “beat the microbead”***

While the long-term environmental effects of microplastics and their presence in our ecosystems are not fully understood, progress is being made to reduce the



existence of microplastics on store shelves. Companies such as L'Oreal, the Body Shop, Johnson & Johnson, and Proctor & Gamble have committed to phasing out all microplastics from their products over the next three years. In the meantime, we can all do our part to reduce the amount of plastics that enter our waterways by knowing how to evaluate products for microplastics: look on the back of product ingredient labels.



Figure 2. Common facial products that contain microplastic beads made of polyethylene or polypropylene.

When you purchase facial products or toothpastes, avoid products that contain polyethylene, polypropylene, or polyvinylchloride. Studies being conducted in the Chesapeake Bay and Puget Sound to assess microplastics in marine debris have identified these plastics as the common culprits. If you're in need of an

exfoliant, try a natural alternative to microbeads, such as salt scrubs, sugar, apricot pits, walnut husks, oatmeal or witch hazel.

*Visit the websites below for more information on microplastics.*

<http://www.stormh2o.com/SW/Articles/23626.aspx>

[http://www.bayjournal.com/article/plastics\\_invisible\\_microplastics\\_a\\_threat\\_to\\_bottom\\_of\\_marine\\_food\\_web](http://www.bayjournal.com/article/plastics_invisible_microplastics_a_threat_to_bottom_of_marine_food_web)

[http://cbf.typepad.com/bay\\_daily/2013/06/plastic-is-all-around-us-in-modern-life-as-we-drink-from-plastic-bottles-type-love-notes-on-plastic-keys-and-celebrate-s.html](http://cbf.typepad.com/bay_daily/2013/06/plastic-is-all-around-us-in-modern-life-as-we-drink-from-plastic-bottles-type-love-notes-on-plastic-keys-and-celebrate-s.html)

<http://www.onearth.org/articles/2013/08/stop-exfoliating-the-great-lakes-plastic>

